

mandant of the yard, inspected the boat. It was too dark then to reach any definite conclusion regarding the cause of the accident, and late last night it was announced by Admiral Usher that no information could be gained concerning the accident until some time to-day.

The board is composed of Lieutenant Commander Pope, Washington, commanding the receiving ship Maine; Lieutenant L. M. Stewart, commanding the destroyer McCall, and Lieutenant Rush H. Fay, commanding the D-3. A court of inquiry will later be appointed by Secretary Daniels, who remained in New York overnight for a final report upon the affair.

#### The Dead.

Logan, Joseph, yard workman, 417 Forty-seventh Street, Brooklyn; in Yard Dispensary.

Peck, John H., plumber, 291 Ainslee Street, Brooklyn; in Cumberland Street Hospital.

Seabert, R. B., third-class electrician of E-2, Cleveland; in Cumberland Street Hospital.

Schultz, John, yard workman, 176 Fourth Street, Brooklyn; in Yard Dispensary.

#### The Injured.

Enlisted Men.

Clark, G. H., Frankfort, N. Y.; face, back and hands burned; taken to Naval Hospital.

Holsey, John, gunner's mate, Haleport, Md.; third class; face, eyes and head burned; taken to Naval Hospital.

Miles, John, chief electrician, 219 De Kalb Avenue, Brooklyn; badly mangled and burned; taken to Naval Hospital.

Ottor, R., electrician, 249 Carlton Avenue, Brooklyn, second class; face and legs burned; taken to Naval Hospital.

#### Navy Yard Employees.

Hassett, Otto, plumber, 319 Twentieth Street, Brooklyn; taken to Cumberland Street Hospital.

Hayne, Richard, plumber, 1038 East Second Street, Brooklyn; taken to Cumberland Street Hospital.

Kaplan, August, plumber, 117 Clymer Street, Brooklyn; cared for on monitor Tallahassee.

Lyons, James, general helper, 239 Fulton Street, Brooklyn; taken to Cumberland Street Hospital.

Peyser, Michael, plumber, 218 Penn Street, Brooklyn; taken to Cumberland Street Hospital.

Zell, Henry, plumber, Huntington, Long Island; taken to Cumberland Street Hospital.

All of the above were badly burned and torn by the explosion.

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"We were laughing and joking together," he said. "We had just returned from lunch and we were all kidding each other. Then there was a big flash and a lot of noise. I found myself lying on the floor. I tried to speak, but something choked me. It was the gas, I guess. Then things seemed to fade away, and the next thing I remember seeing was Lieutenant Homer bending over me. He carried me out. That's all I know about it."

He turned his bandaged face away. Kaplan was soon to have married. Physicians believe that the burns on his face will not be permanent.

Body Hurled from Boat.

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"As far as I know," he announced, "there was nothing explosive aboard her. She was fitted with Diesel engines burning a heavy oil, so this disposes of gasoline as a cause."

Mr. Edison, who attended the dinner of the Ohio Society last night, scribbled on the bottom of a note which asked him for his opinion as to the cause of the accident. "An explosion may be caused by many things. I have no date upon the one to-day."

When seen at the Hotel Martineau last night Secretary Daniels said that he was deeply grieved and concerned over the explosion and expressed his intention of remaining in the city until its definite cause was established.

"I am especially interested in obtaining a complete list of the dead and injured," he remarked, "both for the purpose of forwarding it to Washington and to see that the families of the unfortunate are notified. It is sad that every invention must claim lives before it can be perfected."

The E-2 was built by the Electric Trolley Boat Company at Fore River shipyards, Quincy, Mass. She was placed in commission in February, 1910. Her cost was \$375,000. Her speed was 14 knots, with a cruising radius of 1,000 miles. She was the first submarine to be equipped with the Edison battery.

#### HARRY WHITNEY WEDS

Arctic Explorer and Big Game Hunter Marries Mrs. Eunice Kenison.

Madison, N. J., Jan. 15.—Mrs. Eunice Kenison was married at noon today to Harry Whitney, of New Haven, Conn., Arctic explorer, big game hunter, and the first white man to hear from Dr. Cook's lips the assertion that he had reached the North Pole. The ceremony was performed here at the home of the bride's father, Amos G. Chesbro, by the Rev. Dr. Cornelius Wolfkin, pastor of the Fifth Avenue Baptist Church, New York.

Mrs. Kenison, unmarried, was given in marriage by her father, Mr. Whitney's best man was his brother, Stephen Whitney. The ushers were Captain Robert A. Bartlett, of Brigus, Newfoundland, master of the schooner Jeannie, on which Mr. Whitney has voyaged, and Charles B. Levey, of Elizabeth.

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## E-2 DEFECTIVE, RECORDS SHOW

Built in 1910, She Never Was Satisfactory, Is Asserted.

### SUBMARINE TRUTH HIDDEN BY DANIELS

Critics of Secretary Declare That His Statements Have Given False Impression.

Washington, Jan. 15.—What caused the explosion today on the submarine E-2 at the New York Navy Yard probably will not be known definitely until the special board of naval officers appointed to-night to investigate has completed its inquiry.

From first reports, saying that the New Edison storage batteries in the E-2 were being recharged at the time of the accident, it was concluded by Navy Department officials that hydrogen gas had ignited. Later official information that the batteries were being discharged instead, upset that theory. A comparatively small quantity of hydrogen gas is generated by a storage battery in process of discharge.

Naval experts, discussing the possibility that the explosion occurred when the batteries were being recharged, said extraordinary precautions always should be taken. The new alkali batteries, it was said, have been under test for four years, although Secretary Daniels has tried to create the impression that they were a recent invention. During that time they are reported to have given every reason to believe that the process of charging would be extremely dangerous.

An official of the Navy Department said that experiments showed that the new batteries gave off "about twice as much" hydrogen gas while being charged as the old style acid batteries. To offset this, fans of double the usual capacity were installed to dispel the gas.

#### Never Satisfactory.

The E-2 has never been satisfactory. She was built in 1910, and the records of the Navy Department show that she has frequently been repaired and overhauled. Battery troubles of a serious nature developed during the spring maneuvers last year, and it was then decided to replace the antiquated equipment with the new Edison batteries. The E-2 was the first of a number of submarines to be equipped with the new batteries.

Critics of Secretary Daniels pointed out that he has consistently withheld the truth from the public concerning the wretched condition of submarines. Some even declared that he had given out statements that gave a false impression.

On May 7 the Secretary declared that the second and fourth divisions of the Atlantic submarine made a "continuous" trip of 12,000 miles, from Pensacola, Fla., to New York. It is a matter of record that in this run the submarines were accompanied by tenders carrying fuel and supplies, and that the E-2, in particular, was towed a large part of the distance, owing to the failure of her batteries.

The Secretary's statement also said: "Last fall (1914), when the second division, comprising the D and E boats, was undergoing its routine overhaul at the Norfolk Navy Yard, they were criticised as being unseaworthy condition."

Overhaul Not Routine.

This statement Representative Gardner, of Massachusetts, said at the time was "totally misleading."

As a matter of fact, the overhaul was far from "routine." The E-2, as Navy Department records show, was sent to drydock because of a serious accident. A battery tank cracked, permitting the leakage of salt water into the forward battery, and resulted in the escape of chlorine gas, which severely affected the crew. Previous to that time the E-2 and D-1 had been out of commission for about six months because of battery explosions.

Other submarines were laid up with worn-out air compressors, broken crankshafts and other defects decidedly out of the category of routine repairs. The department's experts on submarine construction said to-night they knew of only two possible causes of the explosion on the E-2, aside from the ignition of hydrogen gas. Which is highly improbable, they said, it was possible that there had been an explosion of the oil used to drive the surface engines.

The second possibility, they said, was that an air flask had exploded. Flasks which furnish the motive power of a torpedo carry a pressure of 200 pounds to the square inch. The fact that the victims of the explosion were badly burned appeared to dismiss that possibility.

"The fact that the explosion occurred under the battery deck, which means in the compartment in which the batteries were stored, would seem to indicate an explosion of hydrogen gas," said Acting Secretary Roosevelt. "A. E. Davidson, an expert analyst of air, made elaborate tests during a six-hour submerged run of this boat. He reported that the hydrogen gas given off while the batteries were being discharged was infinitesimal. In view of this it is difficult to see how a gas explosion could have been the cause."

Hydrogen Gas Explosions Frequent in Submarines.

Hydrogen gas explosions in submarines have been frequent in the past, and several have occurred on American boats within the last few years. Asphyxiation by chlorine gas generated in the batteries was the thing most feared by submarine crews, and it was this fault that the Edison battery was supposed to overcome.

The Edison battery contains a potash solution instead of sulphuric acid, and the only metals used in its construction are steel and nickel. Should the container leak, no poisonous gases can be generated, but it was found that the battery gives off more than double the usual amount of hydrogen gas during the process of charging. This excess of hydrogen was to be carried away by fans, and the fan capacity of the E-2 was doubled. Later, at the request of the installing company, the fan arrangement was changed to afford a more adequate cooling, as the batteries showed signs of overheating.

Naval officers were skeptical and disliked the battery for several reasons, regardless of the fact that it did away with chlorine gas and sulphuric acid gas and that the potash solution had the property of absorbing the carbonic acid gas in vitiated air. More power was necessary to charge it and the excess of hydrogen was considered dangerous.

Before the batteries were installed



Oh! tell me, do, Miss Longtime Out, How do you keep so fair? Have you some wondrous secret That defies the searching stare? 'Tis no secret, Lady mine, Tho I live 'round the clock, The only liquid I indulge Is the water called White Rock\*.

## FIGHT TO CLEAR DEATH AV. WON

Continued from page 1

they were put through exhaustive tests at the Edison works and by the government. They were submerged in salt water for months and then tested for chlorine gas; they were tumbled and over and over again from moving trucks to see if they would break, and as a final test they were put in an apparatus that dropped them a distance of one-half an inch 1,500,000 times. They were then placed in the new plan.

The first test of the new batteries in actual service was made last November, when the E-2 took a long trip up Long Island Sound under the observation of naval and electrical experts. No public report was made of the performance, but it was understood that the experts were not exactly pleased.

From 3 to 8 per cent of hydrogen in the air forms the most explosive mixture. Either above or below that figure is too little or too much gas to make the danger of an explosion great. Those that have occurred on other boats of the United States navy have been of a mild nature and have been caused by the stopping of a fan or other minor accident.

Other navies, however, have suffered fatal accidents of this kind. The explosion comes when the mixture of gas and air has reached the proper proportions and is set off by a spark or a light carelessly handled. Such an explosion occurred on the E-2 at Hempstead just before she made the trip on which she went to the bottom with the loss of her entire crew. Another similar explosion happened on the G-4 when one of the crew fell across two battery connections, forming a short circuit.

"STABBED CARUSO" ARRESTED

Police Say Tameful-Named Italian Did the Stabbing.

"Police! Police! Caruso is stabbed!" This alarm brought Patrolman McGowan to the corner of Tenth Avenue and Forty-second Street, where he says he found that Caruso was not stabbed, but the one who did the stabbing.

The wounded man was a machinist, Thomas Gleason. After he was in the hospital and Raphael Caruso, of 557 West Forty-second Street, locked up, accused of attacking him, the rumor spread down the West Side that the great Caruso had been stabbed.

TRIO BEAT MAN; BIND GIRL

Jealousy Prompts Mysterious Attack by Autoists.

Hastings, N. Y., Jan. 15.—Antonio George was snatching along Ashford Avenue, Dobbs Ferry, with a girl this evening, when a trio of automobiles passed and three men sprang out. Two of the men seized George, beat him into insensibility with a blackjack, slashed him with a knife and all but gouged his eyes out.

The third man dragged George's companion to a fence and bound and gagged her. Then he joined his two companions, sprang into the machine and drove away.

No attempt was made to rob either the man or the girl. Jealousy is believed to have been the motive.

CHANGES IN WESTERN UNION

W. W. Ryder Comes Here as Assistant to Vice-President.

Chicago, Jan. 15.—An order transferring several heads of the Western Union Telegraph Company was issued today. Morris Cook, assistant general manager at Chicago, becomes general manager of the Pacific division, with headquarters in San Francisco; C. H. Gaunt, now general manager of the Pacific division, is to come to Chicago to succeed W. W. Ryder, present general manager here.

Mr. Ryder is to go to New York to become assistant to the vice-president.

Juvenile Asylum Has New Head.

The New York Juvenile Asylum, in a meeting yesterday at 11 William Street, elected officers for the coming year. Charles D. Hilles refused to accept reelection as president, an office held by him for the last four years, but accepted election as director, treasurer and chairman of the executive committee. The other officers are: President, William S. Hawk; vice-president, Edmund Deane; secretary, vice-president, Guy Van Amringe, and secretary, Henry W. Tift.

The anti-spitting campaign is still being carried on, although the wariness of spitters is decreasing the number of summonses. A total of 1,520 summonses was handed out in five days.

Crepe de Chine and Satin Underwear

Superior Crepe de Chine and Washable Satin Undergarments, in Pink or White, Tailored or Trimmed Models.

Women's Satin Nightgowns..... 4.95 5.90 6.90

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Women's Satin Underbodies..... 1.00 2.00 2.95

Women's Satin Petticoats..... 3.95 4.95 5.90

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compared with the proposed 1913 act, which the city has imposed upon the railroad, to meet a better city plan and to overcome the public objections made to the 1913 proposition.

The railroad, under the new plan, will go through a tunnel under Inwood Hill from the Ship Canal to Dykman Street, and over Dykman Street by viaduct, obtaining any change in the grade over its right of way through Washington Park, and it will roof over its main line tracks along Washington Heights from 133d Street to 153d Street. The tunnel along Riverside Park will mean a largely amplified park space, better park development and the maintenance of uninterrupted park slopes on a park plan approved by the city.

Between Eighty-second and Seventy-second Streets the railroad will go by subway, this construction being necessary to give an approach to the railroad's Sixtieth Street yard. An elevated line will be constructed along the new and existing Twelfth Avenue from Fifty-ninth Street to Thirtieth Street, and an elevated line from the Thirtieth Street yard to its southern terminus on a right of way through private property to the east of West Street, which the railroad will acquire at its own expense.

The improvement calls for complete electrification by the railroad and the restoration of Riverside Park. Park Commissioner Ward was highly elated because he had succeeded in getting the railroad to restore the park. Borough President Marks declared that the agreement would be "a great blessing to the city."

Under the proposed agreement in 1915 the land parcels referred to for exchange bordered the railroad's right of way from Spuyten Duyvil Creek to Sixtieth Street. The land was of little value to the city and the railroad wanted to buy it. The Controller said that time appraised the land and found that its value would offset whatever was to be paid by the city for the work at Inwood Hill, Fort Washington Park and Riverside Drive, with a balance in the city's favor of \$163,887. It is this amount, evidently, which the Controller now says the city would contribute.

Most of the objectionable features of the proposed 1913 plan seem to have been overcome in yesterday's settlement. The railroad went much further than it would go in former negotiations.

GRIP ON THE WANE AFTER 6 WEEKS' HAVOC

Cold and Anti-Spitting Campaign Help to Check Epidemic.

The grip epidemic is on the wane. After a steady climb of six weeks the bend of the curve seems to have been passed, according to the report given out yesterday noon by the Health Department. Deaths from grip, pneumonia and bronchial diseases decreased to 442 for the week ended yesterday from the high figure of 551 for the previous week.

That there is still a grip epidemic is seen from the fact that last week's deaths from grip were ninety, as compared with eighty-five the previous week, and compared with ten for the corresponding week last year. The deaths from grip for the last four weeks have been running from eight to fifteen times as many as in the corresponding weeks of the previous year.

Dr. Charles F. Bolduan, director of the Bureau of Public Health, said that the brisk cold weather had helped to check the epidemic and that the Health Department's campaign against sneezing, coughing and spitting, together with warnings to avoid crowds, also had played an important part in bringing the winter grip drive to a standstill.

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